

CLAIMS

WHAT IS CLAIMED IS:

1. A particulate tape, comprising:

a first material, wherein said first material is electrophoretically deposited.
2. The particulate tape of claim 1, wherein said first material is generally dielectric.
3. The particulate tape of claim 2, wherein said dielectric material includes barium titanate.
4. The particulate tape of claim 1, wherein said particulate tape is substantially uniform and continuous.
5. The particulate tape of claim 1, wherein said first material is deposited in a pattern corresponding to a patterned electrode.
6. The particulate tape of claim 1, wherein said first material is generally conductive.
7. The particulate tape of claim 6, wherein said conductive material includes silver.
8. The particulate tape of claim 6, wherein said conductive material includes nickel.
9. The particulate tape of claim 6, wherein said conductive material is in a pattern corresponding substantially to a patterned electrode.

10. The particulate tape of claim 1, further including a second material.

11. The particulate tape of claim 10, wherein said second material is formed at least partially on said first material.

12. The particulate tape of claim 10, wherein said second material is formed adjacent to said first material.

13. The particulate tape of claim 10, wherein said second material is electrophoretically deposited.

14. The particulate tape of claim 10, wherein said first material is electrophoretically deposited on said second material.

15. The particulate tape of claim 10, wherein said first material is generally conductive and said second material is generally dielectric.

16. The particulate tape of claim 15, wherein said dielectric material includes barium titanate.

17. The particulate tape of claim 10, wherein said first material is continuous through the thickness of the tape.

18. A method for producing a particulate tape, comprising:
electrophoretically depositing a first material on a carrier.

19. The method of claim 18, wherein said first material is generally dielectric.

20. The method of claim 19, wherein said dielectric material includes barium titanate.

21. The method of claim 18, wherein said first material is generally conductive.

22. The method of claim 18, further including the step of transferring said first material to another tape.

5 23. The method of claim 18, further including forming a second material.

24. The method of claim 23, wherein said second material is formed at least partially on said first material.

10 25. The method of claim 23, wherein said second material is formed adjacent to said first material.

26. The method of claim 23, wherein said second material is electrophoretically deposited.

27. The method of claim 26, wherein said first and second materials are deposited by energizing a plurality of electrodes.

15 28. The method of claim 27, wherein the plurality of energized electrodes are electrically isolated from each other.

29. The method of claim 23, wherein said first material is continuous through the thickness of the particulate tape.

30. An apparatus for forming a particulate tape, comprising:

20 a carrier having a conductive surface;

an electrophoretic deposition bath containing a counter electrode; and

a means for applying an electric potential between the conductive surface of the carrier and the counter electrode.

31. The apparatus of claim 30, further including more than one electrophoretic deposition bath.

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